This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. **(Currently Amended)** A method of determining the current status and remaining life of a power source in an implantable neurological tissue stimulator comprising the steps of:

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assessing the power source voltage of the power source in an implantable neurological tissue stimulator;

determining, based on the assessed power source voltage, where the power source is in its power source life cycle;

obtaining a used capacity of the power source and a time that the power source has been operating, wherein the used capacity and the time are variables that reflect actual historical power consumption of the implantable neurological tissue stimulator ~~actual measurements~~; and

determining the remaining life of the power source based on the used capacity of the power source and the time that the power source has been operating.

Claim 2. **(Original)** The method of claim 1 wherein the step of assessing the power source voltage is done by connecting the power source to a analog to digital (A/D) converter.

Claim 3. **(Original)** The method of claim 1 wherein the step of determining where the power source is in its power source life cycle includes the step of determining the remaining power source capacity.

Claim 4. **(Original)** The method of claim 3 further comprising the step of determining, using the determined remaining power source capacity, the remaining life time of the power source.

Claim 5. **(Previously Presented)** The method of claim 1 wherein the step of determining the remaining life of the power source includes the steps of :

determining the probable usage rate of the power source; and

dividing the determined remaining capacity by the probable usage rate of the power source.

Claim 6. **(Previously Presented)** The method of claim 1 wherein the step of determining the remaining life of the power source includes the step of determining the probable usage rate of the power source.

Claim 7. **(Original)** The method of claim 6 wherein the step of determining the probably usage rate of the power source includes the step of determining the used capacity of the power source.

Claim 8. **(Original)** The method of claim 7 wherein the step of determining the probable usage rate of the power source includes the step of dividing the determined used capacity of the power source by the length of time that the implantable neurological tissue stimulator has been working.

Claim 9. **(Original)** The method of claim 6 wherein the step of determining the probably usage rate of the power source includes the step of determining the used capacity of the power source since the last time the implantable neurological tissue stimulator was reprogrammed.

Claim 10. **(Original)** The method of claim 8 wherein the step of determining the probably usage rate of the power source includes the step of dividing the determined used capacity of the power source since the last time the implantable neurological tissue stimulator was reprogrammed by the length of time since the implantable neurological tissue stimulator was reprogrammed.

Claim 11. **(Original)** The method of claim 1 wherein the step of determining where the power source is in its power source life cycle includes the step of determining the used power source capacity.

Claim 12. **(Original)** The method of claim 1 wherein the step of determining where the power source is in its power source life cycle includes the step of correlating, in a "look-up table", the power source voltage assessed in the step of assessing the power source voltage to a predetermined "power source capacity remaining" value.

Claim 13. **(Original)** The method of claim 1 wherein the step of determining where the power source is in its power source life cycle includes the step of correlating, in a "look-up table", the power source voltage assessed in the step of assessing the power source voltage to a predetermined "power source capacity used" value.

Claim 14. **(Original)** The method of claim 1 wherein the step of determining where the power source is in its power source life cycle includes the step of determining the power source capacity used and then subtracting this value from the total power source capacity;

whereby, the power source capacity remaining is determined.

Claim 15. **(Original)** The method of claim 1 wherein the step of determining where the power source is in its power source life cycle includes the step of determining the power source capacity remaining and then subtracting this value from the total power source capacity;

whereby, the power source capacity used is determined.

Claim 16. **(Original)** The method of claim 1 wherein the step of determining where the power source is in its power source life cycle includes the step of calculating, using the power source voltage determined in the step of assessing the power source voltage of the power source in an implantable neurological tissue stimulator, the remaining power source capacity by a formula.

Claim 17. **(Previously Presented)** A method of determining the current status and remaining life of a power source in an implantable neurological tissue stimulator comprising the steps of:

assessing the power source voltage of the power source in an implantable neurological tissue stimulator;

determining, based on the assessed power source voltage, where the power source is in its

power source life cycle by calculating the remaining power source capacity by using a formula of the form: Remaining Battery Capacity = a constant + a constant multiplied by the power source voltage determined in the step of assessing the power source voltage of the power source in an implantable neurological tissue stimulator; and

taking appropriate action in response to the determination of where the power source is in its power source life cycle.

Claim 18. **(Original)** The method of claim 16 wherein the step of calculating the remaining power source capacity by a formula includes the step of calculating the remaining power source capacity by using a non-linear formula.

Claim 19. **(Original)** The method of claim 1 wherein the step of determining where the power source is in its power source life cycle includes the step of calculating, using the power source voltage determined in the step of assessing the power source voltage of the power source in an implantable neurological tissue stimulator, the power source capacity used by a formula.

Claim 20. **(Previously Presented)** A method of determining the current status and remaining life of a power source in an implantable neurological tissue stimulator comprising the steps of:

assessing the power source voltage of the power source in an implantable neurological tissue stimulator;

determining, based on the assessed power source voltage, where the power source is in its power source life cycle by calculating the power source capacity used by using a formula of the form: power source capacity used = a constant + a constant multiplied by the power source

voltage determined in the step of assessing the power source voltage of the power source in an implantable neurological tissue stimulator; and

taking appropriate action in response to the determination of where the power source is in its power source life cycle.

Claim 21. **(Original)** The method of claim 19 wherein the step of calculating the remaining power source capacity by a formula includes the step of calculating the remaining power source capacity by using a non-linear formula.

Claim 22. **(Previously Presented)** The method of claim 1 further comprising the step of informing the user of where in the power source life the power source is.

Claim 23. **(Original)** The method of claim 22 wherein the step of informing the user of where in the power source life the power source is includes the step of displaying a representation of the percentage of power source capacity used.

Claim 24. **(Original)** The method of claim 22 wherein the step of informing the user of where in the power source life the power source is includes the step of displaying a representation of the percentage of power source capacity remaining.

Claim 25. **(Original)** The method of claim 22 wherein the step of informing the user of where in the power source life the power source is includes the step of determining whether the remaining power source capacity falls within a predetermined limit.

Claim 26. **(Original)** The method of claim 25 wherein the step of determining whether the remaining power source capacity falls within a predetermined limit further includes the step of alerting the user if the remaining power source capacity falls within a predetermined limit.

Claim 27. **(Original)** The method of claim 26 wherein the step of alerting the user if the remaining power source capacity falls within a predetermined limit further includes the step of alerting the user by triggering an alarm.

Claim 28. **(Previously Presented)** The method of claim 27 wherein the step alerting the user by triggering an alarm includes the step of triggering an alarm chosen from the group consisting of audible or visual warnings.

Claim 29. **(Currently Amended)** A method of determining the current status and remaining life of a power source in an implantable neurological tissue stimulator comprising the steps of:

assessing the voltage of the power source in an implantable neurological tissue stimulator;

determining, based on the assessed voltage of the power source, where the power source is in its life cycle;

obtaining a used capacity of the power source and a time that the power source has been operating, wherein the used capacity and the time are variables that reflect actual historical power consumption of the implantable neurological tissue stimulator ~~actual measurements~~; and

determining the remaining life of the power source based on the used capacity of the power source and the time that the power source has been operating.

Claim 30. **(Currently Amended)** A device for determining the current status and remaining life of a power source in an implantable neurological tissue stimulator device comprising:

an implantable neurological tissue stimulator, the implantable neurological tissue stimulator having:

a source of power;

a voltage determining system for determining the voltage of the source of power;

a programmer for creating and processing information to be sent to and received from the implantable neurological tissue stimulator, the programmer including a processor and a memory attached thereto;

a system for communicating information between the implantable neurological tissue stimulator and the programmer;

wherein the voltage determining system for determining the voltage of the source of power passes the determined voltage of the source of power to the system for communication; and

wherein the system for communication passes the determined voltage of the source of power from the implantable neurological tissue stimulator to the programmer and to the processor, and

wherein the processor determines, based on the determined voltage of the source of power, where the source of power is in its life cycle; obtains a used capacity of the power source and a time that the power source has been operating, wherein the used capacity and the time are

variables that reflect actual historical power consumption of the implantable neurological tissue stimulator ~~actual measurements~~; and determines the remaining life of the power source based on the used capacity of the power source and the time that the power source has been operating.

Claim 31. **(Original)** The device of claim 30 wherein the processor determines where the source of power is in its life cycle by correlating the determined voltage with a remaining capacity value stored in a "look-up" table.

Claim 32. **(Original)** The device of claim 30 wherein the processor determines where the source of power is in its life cycle by correlating the determined voltage with a used capacity value stored in a "look-up" table.

Claim 33. **(Original)** The device of claim 30 wherein the processor determines where the source of power is in its life cycle by calculating the remaining capacity in the source of power by using a predetermined formula.

Claim 34. **(Original)** The device of claim 30 wherein the processor determines where the source of power is in its life cycle by calculating the used capacity of the source of power by using a predetermined formula.

Claim 35. **(Original)** The device of claim 30 wherein the power source is a battery.

Claim 36. **(Original)** The device of claim 30 wherein the power source is a capacitor.

Claim 37. **(Previously Presented)** A method of electrically stimulating nervous tissue in a patient, comprising the steps of:

implanting in the patient a pulse generator having a power source, and a lead connected to the pulse generator;

stimulating nervous tissue with electrical pulses generated by the pulse generator and communicated by the lead;

controlling the pulse generator within preset limits by the patient to adjust stimulation of nervous tissue;

determining the status and remaining life of the power source as set forth in claim 1.

Claim 38. **(Previously Presented)** A method of electrically stimulating nervous tissue in a patient, comprising the steps of:

implanting in the patient a pulse generator having a power source, and a lead connected to the pulse generator;

stimulating nervous tissue with electrical pulses generated by the pulse generator and communicated by the lead;

controlling the pulse generator within preset limits by the patient to adjust stimulation of nervous tissue;

determining the status and remaining life of the power source as set forth in claim 23.

Claim 39. **(Previously Presented)** A method of electrically stimulating nervous tissue in a patient, comprising the steps of:

implanting in the patient a pulse generator having a power source, and a lead connected to the pulse generator;

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stimulating nervous tissue with electrical pulses generated by the pulse generator and communicated by the lead;

controlling the pulse generator within preset limits by the patient to adjust stimulation of nervous tissue;

determining the status and remaining life of the power source as set forth in claim 27.